

Spartanburg Public Safety Department Fire Division

Standard Operating Procedure	No. 102.04
Fire Ground Factors	Page 1 of 3
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I. PURPOSE

Command must consider several items in the evaluation of tactical situations. It is essential that command identifies critical fire ground factors and addresses them as soon as possible. Each tactical situation will have a different set of critical fire ground factors.

A list of fire ground factors provides command with a "checklist" of the basic items that are involved in size-up, decision-making, initiating action, review and revision on the fire ground.

II. INFORMATION MANAGEMENT FACTORS

Command will seldom operate with complete information during initial operations. However, it is important to collect as much information about the tactical situation as possible in a short amount of time.

There are factors that can be determined from a command position on the outside of the structure and factors that are determined from other operating positions - both outside and inside the structure. There are three basic information factors that command can use to collect information:

Visual Factors

These factors include those obvious to visual observation and those absorbed subconsciously. Visual information is the type that can normally be gained by actually looking at a tactical situation from the outside. This form of intelligence involves the perceptive capability of command.

Reconnaissance Factors

These factors include information that is not visually available to command from a position on the outside of a tactical situation and must be gained by actually sending someone to check-out, go-see, look-up, research, advise, call, go-find, etc. This generally involves command making a specific assignment and then receiving an information-oriented report.

Preplanning and Familiarity Factors

Such intelligence increases the information initially available to command from the prior to the start of a tactical situation. This information provides command with intelligence that would otherwise have to come from a reconnaissance report or might not be available.

III. FIRE GROUND FACTORS

The following are critical fire ground factors which should be evaluated by command as they pertain to each tactical situation. They can be obtained by using the above information management factors.

Building

- Size: area, height
- Roof type and condition: bow string, light-weight truss, etc.
- Interior arrangement/access: stairs, halls, elevators
- Construction type: ability to resist fire effect
- Age
- Condition: faults, weaknesses
- Value
- Compartmentation/separation
- Vertical and horizontal openings, shafts, channels
- Outside openings: doors, windows, degree of security
- Utilities: hazards, controls
- Concealed and void spaces
- Exterior access
- Effect the fire has had on the structure (at this point)
- Time projection on continuing fire effect on building

Fire

- Size: smoke, heat, flame
- Extent: percent of structure involved
- Location
- Stage: incipient, flashover, etc.
- Direction of travel
- Time of involvement
- Type and amount of material involved: structure, interior finish, contents, etc.
- Type and amount of material left to burn

Occupancy

- Type: business, mercantile, assembly, hazardous, etc.
- Value characteristics associated with occupancy
- Hazard characteristics associated with occupancy
- Fire load: size, nature
- Status: open, closed, occupied, under construction, etc.

- Type of contents
- Property conservation of contents

Life Hazard

- Number of occupants
- Location of occupants in relation to the fire
- Condition of occupants: exposure to smoke/fire, incapacities, impairments
- Commitment required for search and rescue: personnel and equipment
- Fire control and access required for search and rescue
- EMS needs
- Time estimate of fire effect on victims
- Exposure and control of spectators
- Hazards to fire personnel
- Escape routes/avenues of escape: type, safety, fire conditions, etc.

Arrangement

- External exposures: access, arrangement, distance
- Internal exposures: access, arrangement, distance
- Combustibility of exposures
- Severity and urgency of exposures: fire effect
- Value of exposures
- Time estimate of fire effect on exposures: internal and external
- Obstructions to operations
- Capability and limitations on apparatus movement and use

Resources

- Personnel and equipment: on-scene, responding, staging, mutual aid
- Estimate of response time for additional resources
- Condition of personnel
- Capability of personnel
- Capability of command personnel
- Availability of hydrants
- Adequacy of water supply
- Built-in private fire protection: sprinkler, standpipe, alarms
- Outside agency resource and response time

Other Factors

- Time of day or night
- Day of week
- Season
- Special hazards by virtue of holidays and special events
- Weather: wind, rain, heat, cold, humid, visibility
- Traffic conditions
- Social conditions: strike, riot, mob, rock festival